MT 7/8 S Family

Moto alarm

All Jecko Products have been officially tested by laboratories of competent ECC Organisations as well as by Technical Centres of different Insurance companies. The result of all tests has proved the full compliance of Jecko products to the European laws 95/54 and 95/56. Jecko products have achieved "e" omologation as well as the major European homologation like SRA in France, TNO in Holland, THATCHAM in UK, ISC in Israel, HF and KERMI in Hungary, SB&S in Sweden.

Tecnichal Description

Selca MT 7/8 S family range is a remote control operated anti-thieft alarm system, suitable for negatively earthed 12 volt battery, powered electrical system.
The motorbike MT 7/8 S system is a compact unit that prevents the engine from being started by two engine cut-offs. It has a built in siren and back up battery to guarantee system operations even if the wires are cut.
The alarm system is operated by a high security random code remote control that issues a very high degree of protection against all attempts to reproduce the code.
Three procedures accessible by PIN code, allow you to modify the programming functions, to add new remotes and to disarm your system in emergency mode when your remote doesn't work.
The ignition key inserted in the dashboard is used in order to qualify and confirm the PIN code numbers.
Optional electronic key, not provided in the package, can be always used instead of remote controls and it makes easier the emergency procedure.
The system allows to program some functions that make it adaptable to satisfy particular user needed.
Amongst other high technical features, the system carries out a new generation of electronic anti-lifting sensor. Completely managed by the microprocessor, this sensor, first saves in its memory the parking position and then detects when the vehicle is lifted or inclined from that position. It can work in any position you fit the alarm system.

Range of protection offered by the device.

The system defends the vehicles by two electrical immobilisation engines and it grants the following protections:

Ignition key ON detect (+15).
Anti-lifting sensor.
Contact to ground switch.
Method of setting/unsetting the device
The device is principally driven by a remote control and in case of malfunctioning it can be used the pin code procedure.
Pushing the “B” button of the remote, the devices change status from arm to disarm and from disarm to arm.
For safety reason, the software avoids device arming with ignition key ON (+15).

The system function Cells.

The family range has a very flexible architecture: different combinations of the various function cells give a wide variety of products by using a unique electronic PCB.

The different function cells are: engine cut off, auxiliary engine cut off, electronic key system, back up battery, shock sensor, siren loudspeaker unit.

Engine cut off .

The engine cut off cells are composed of one or two normally open relays (accordingly with the number of the loom wires). They are located on the PCB and managed by the microprocessor.
Upon request, at the manufacturing stage, the software activates the immobilizer function.

Electronic Key System.

The electronic key system is done by Master Key, Service Key and Socket.
The specially designed socket, connected to the device through two specific connectors, is the point of contact between the electronic keys and the device. A status LED is fitted into the Socket.
At the manufacturing stage it is created a unique and everlasting link between the device microprocessor and the Red Master Key code that make the user able to enter the remote and electronic key codes through autolearning procedure and to put the device on the “service” mode.
The electronic key can also be used as substitute of the remote to arm and disarm the system.
In this case after reading, comparing and storing the code of the Electronic Key into the EEprom, the microprocessor software actives a procedure (device self-arming and alarm pre-alert) different from the one used when the device is controlled by the remote.
The simple use of the remote re-establishes the normal procedure.

Back up Battery.

It is a pack of 6 Metal Hydride cells rechargeable 7,2 Volt - 60 mAh.
It provides to back up the power in case of disconnection of the device from the car battery. It is located inside the siren case below the PCB to which it is connected through a connector. The battery is recharged when the ignition key is on.
Depending on the model, in case of low battery, at every arming the device sounds a 10 beep alarm. The back up battery system allows the disconnection of the vehicle battery when the system is disarmed.

Siren loudspeaker unit.

It is an ultra light piezoelectric loudspeaker fitted on a the siren plastic case sealed thought an o-ring making the device waterproof.
A two way connector is provided with PCB to connect the siren.

Antilifting sensor.

Minimum Sensitivity: **2 degrees with speed less than 7 degrees/minute**
Typical Sensitivity: **1,5 degrees. (1,93 cm /MT 7/8 S.)**
High technology electronic anti-lifting sensor.
The most important news is that there are no mechanic parts in movement and the sensor is realized by a silicon device,and it's completely managed by a microprocessor that, first saves in its memory the initial position and then detects if it is lifted or moved from the initial position.
The system can work in any position because it is able to detect angled movement in two axes (X Y).
After a few seconds of auto-calibration (Typ. 20 sec), the sensor is ready to detect any movement from the initial condition.
In case of alarm, a low signal (ground) is available for a couple of seconds on the output.
Thanks to its high capability to analyze movements, this sensor it's able to calibrate the new position. Consequentially very slow are not considered and new position are update.
The alarm signal could be generated with a delay variable up to 4 seconds.

Method of setting/unsetting the device.

The device is mainly operated by a remote control.
In case of malfunction of the system it can be used the electronic key.
Pushing the button "B" of the remote the devices change status from arm to disarm and from disarm to arm.
If for any reason the user need to exclude the volumetric sensor when armoing, the alarm can push twice the "B" button of the remote.
With ignition key on (+15) the software prevents the device arming for safety reasons.

Code encryption algorithms.

The encoder engine generates a code word with 2 high 66 bits with 2 high 32 bits interchangeable code.
The code creates a unliterary encryption algorithm that makes each transmission unique. thus rendering code capture and re send (code grabbing) useless.
The length of the code eliminates the treat of code scanning.
The Identification Number of the transmitter (ID number) is factory programmed actory and the software grants that no two parts are alike.
The chip is read protected and any attempt to gain access to key erase the internal data.
The chip inside of the electronic key provides to generates a code with 2 high 56 Word code.

Pin Code features :

1) Emergency mode in case of loss or malfunctioning of the remote control
The override procedure can be used anytime in case it is not possible to use the remote and it causes the antitheft alarm system exclusion. The ignition key inserted in the dashboard is used in order to qualify and confirm your PIN code numbers.
It is advised to learn such procedure very well.
If you make any mistake, turn the ignition “OFF”, wait 20 seconds and repeat from step1.
Note : If you use the override procedure only when the immobiliser is armed, you will see the status LED ON every time you put the ignition ON. If you use the override procedure when the alarm is armed, the siren will sound until the procedure is correctly finished.

2) Programming new remote controls and/or optional electronic keys
It is possible to program up to 4 remote controls and 2 electronic keys
To program new remote controls or optional electronic keys use your PIN code and the ignition key. The ignition key inserted in the dashboard is used in order to qualify and confirm your PIN code numbers.

3) User Programming Functions
Some of the working features of this alarm system are programmable by your PIN code, remote controls and ignition key. The ignition key inserted in the dashboard is used in order to qualify and confirm your PIN code numbers.

Features and functionality

- Compact unit
- Standard or advanced installation option
- 4 figures digital pin code
- No. 1 or 2 engine cut-offs
- Status Led
- Panic function
- Excludable negative output
- Siren output
- Optional pager output
- Optionable input sensor
- Opening command boot
- External cortecy light during the disarming
- Option of the module output: “excludable” or “not excludable”
- Emergency pin code
- Passive engine cut-off
- Manual or automatic anti-theft function
- Interface command for satellite systems
- Low power function
- Remote control push button assignment

Improvements

MT 7/8 S7 S and MT 7/8 S8 S are designed in order to realize every connection the user wish to obtain.
They completely fulfil this concept for everyone that wants to obtain the maximum in terms of protection and comfort.
The new available functions are:

1. Improvement of P.M.I. (**P***rogram* **M***enu* **I***nterface*). Adding of entering functions diversified on two difference programming levels.
2. Output programmable solution for combination to the Satellite systems.
3. Arming and disarming function with separate button of the remote control.
4. Control of 4 different kinds of siren.
5. Combining of the siren with digital code command.
6. User interchangeable Pin Code.

Special features:

- **Compact alarm unit**
- **Identification system of the alarm status**
- **Identification system of the alarm causes**

Advanced features:

- **Automatic engine cut-off (always activated)**
- **Automatic arming (optional)**
- **Siren and acoustic level sound selection**
- **Extended protection area around the vehicle**
- **Anti-theft functions: manual or automatic**
- **Emergency procedure**

Special features:

Compact alarm unit

Compact alarm unit is controlled by remote control and it is designed for 12 V. negative ground vehicles.
The 2 engine cut-offs, contact supply is of 8 Amp./each
No.1 : 3 wires engine cut-off
No.1 : 2 wires engine cut-off

Identification system of the alarm status

Lightening and unlightening of the Led indicates the different status of the system as follows indicated:

- LED unlighted and ignition key switched off = system in disarming

- LED lighted and ignition key switched off = immobilizer in arming

- 1 flash every 4 seconds = alarm and immobilizer in arming

- 14 flashes of the LED = auto-learning procedure

By pushing the B button of the remote control, the total number of the flashes will indicate the total number of the learned remote control and electronic keys.

Identification system of the alarm causes

The system is designed and programmed in order to memorize and state every kind of alarm cause.
The related alarm cause identification can refer to:

- the opening of the boot or detachment of the jack stand;
- the attempt of switching on of the vehicle;
- the cutting of the wires;
- antilifting sensor first axis
- antilifting sensor second axis

Advanced functions

Automatic engine cut-off (always activated)

Automatic activation of the engine cut-off within 30 seconds from the switching off of the engine or disarming.
Engine cut-off activation: it is indicated by fixed switching on of the Led and ignition key on.
Engine cut-off deactivation: it is complied simply by pushing the “B” button of the remote control or putting the electronic key close to the plug.

Automatic arming (optional).

Once activated, the system will be automatically armed within 30 seconds after the disarming in case meanwhile:
1- the ignition key is switched off;
2- it is not pushed the button connected to the wire - no. 5.

Siren and acoustic level sound selection

It is possible to choose between two different kinds of siren :
- swiped siren
- bitonal siren

This is in order to improve the range of products we have at our disposal as well as to get forward to every final customer request.

Extended protection area around the motorcycle

In terms of security, the protection gained by garaging the motorcycle is typically very low. In just a few seconds the door can be violated and the access to the motorcycle gained. With MT 7/8 S7 S and MT 7/8 S8 S it is possible to protect the motorvehicle with wireless infrared and magnetic sensor. Any breach of these sensors will cause the alarm trigger. The unit can support up to four individual sensors. All sensors are auto-learning, complete with long life battery and they are excludable by the security system remote control handset.
This kind of sensors can be easily adopted to protect rooms as for instance Camper.
In fact the complete absence of wires makes the installation extremely easy.
Combining it with a RF interface makes possible to create few zones and if it is used on Campers, it allows the presence of the user also when the alarm system is activated.

Anti hi-jack functions: manual or automatic one

MT 7/8 S7 S and MT 7/8 S8 S offer two different kinds of anti hi-jack function.
Firstly: when required, it allows the user to activate this function by remote control.
Secondly: It is completely automatic and does not require any action by the user.
An ingenious Personal Security Transmitter (PST) makes recognition of the authorized user possible. This is a very small transponder unit, which is kept with the user.
When the authorized user is close to the motorcycle, there is a continuous electronic dialogue between PST and SPLIT, resulting in the automatic disarming of the anti hi-jack function.
However, if the user is not with the motorcycle, as in case of theft, the anti hi-jack function will bring the motorcycle to a controlled stop.
Moreover MT 7/8 S7 S and MT 7/8 S8 S are able to recognize up to 4 PST's.

Emergency procedure

Emergency procedure can be utilized every moment when it is not possible to disarm the alarm by the remote control.
To activate this function it is necessary to utilize the PIN code as well as the ignition key of the vehicle and to follow the procedure indicated by the related user manual.